



BOSTON RETIREMENT SYSTEM

 Commonwealth of Massachusetts
Public Employee Retirement Administration Commission
Annual Statement

March 20, 2023

2022 



Annual Statement of the Boston Retirement System for the Year Ended December 31, 2022

FUNDS 2023

Organized Under the Laws of the Commonwealth of Massachusetts to the Public Employee Retirement Administration Comm.

Date of Certificate June 30, 1946 Effective Date October 1, 1946

ADMINISTRATIVE OFFICE

City Hall, Room 816 Boston, MA 02201 (617) 635-4305
Street & Number City/Town, State and Zip Code Telephone Number

We, the undersigned, members of the Boston Board of Retirement certify under the penalties of perjury, that we are the official board members of said retirement system, and that on the thirty-first day of December last, all of the herein-described assets were the absolute property of said retirement system, free and clear from any liens or claims thereon, except as stated, and the following statements, with the schedules and explanations therein contained, annexed, or referred to, are a full and correct exhibit of all the assets, liabilities, income and disbursements, changes in fund balances, and of the conditions and affairs of the said retirement system on the said thirty-first day of December last, and for the year ended on that date, according to the best of our information, knowledge, and belief, respectively.

BOARD OF RETIREMENT

Ex-Officio Member

Maureen Joyce _____
(Name) (Signature)

Appointed Member **Term Expires** _____

DANIEL J. GREENE, CHAIRMAN _____
(Name) (Signature)

Elected Member **Term Expires** 9/30/2023

MICHAEL D. O'REILLY _____
(Name) (Signature)

Elected Member **Term Expires** 9/30/2023

MICHAEL McLAUGHLIN _____
(Name) (Signature)

Member Appointed by Other Members **Term Expires** 1/15/2024

THOMAS V. J. JACKSON _____
(Name) (Signature)

INVESTMENT MANAGERS

SEE ATTACHED SCHEDULES _____
(Name) (Address)

(Name) (Address)

(Name) (Address)

INVESTMENT CONSULTANT

NEPC 255 STATE ST., BOSTON, MA 02109
(Name) (Address)

CUSTODIAN

STATE STREET BANK & TRUST 1 LINCOLN ST., BOSTON, MA 02111
(Name) (Address)

MANAGER NAME
BRS FUNDS 2023

U.S. EQUITY

ARISTOTLE SM CAP
ARISTOTLE LG CAP VALUE
BERNZOTT
COLUMBIA MANAGEMENT
DE SHAW ENHANCED INDEX FUND
RHUMBLINE ADVISERS
WESTFIELD CAPITAL MGMT CO
ZEVENBERGEN CAPITAL INC.

NON-U.S. EQUITY

ABS
COLUMBIA THREADNEEDLE
LAZARD EM SMALL CAP
PANAGORA ASSET MANAGEMENT
POLUNIN DEVELOPING COUNTRIES
SEGAL BRYANT HAMILL
TODD ASSET MANAGEMENT
WALTER SCOTT INTERNATIONAL EQUITY

HEDGE FUND OF FUNDS

BLACKSTONE
ENTRUST CAPITAL DIVERSIFIED
GROSVENOR INSTITUTIONAL PRT
MESIROW ABSLTE RTRN FD LTD

U.S. FIXED INCOME

AFL - CIO H.I.T.
BLACKROCK SIO
CRESCENT HY
POLEN CAPITAL (formerly DDJ)
INCOME RESEARCH & MANAGEMENT
ALLSPRING GLOBAL (formerly WELLS ASSET MGMT)

NON U.S. FIXED INCOME

ABERDEEN EMD PLUS

ALTERNATIVE CREDIT

400 CAPITAL AB OFFSHORE TERM
400 CAPITAL AB OFFSHORE TERM III
BAIN CAPITAL DISTRESSED AND SPECIAL SITS
ENTRUST SPECIAL OPPORTUNITIES IV
FIRST EAGLE (formerly THOMAS H LEE) CREDIT DL IV
GOLDEN TREE MULTI SEC OPP CRED
GOLDEN TREE DISTRESSED DEBT FD
GOLDENTREE DISTRESSED DEBT 2014
GOLDENTREE DISTRESSED DEBT FD III
GOLDENTREE DISTRESSED DEBT CO-INVESTMENT FD III
GOLDENTREE DISTRESSED DEBT FD IV
HARBOURVEST CREDIT OPPTS II
HARBOURVEST CREDIT OPPTS III
MC CREDIT FUND III
OAKTREE POWER OPP III

REAL ESTATE

AEW PARTNERS IX LP
AEW PARTNERS V LP
AEW PARTNERS VIII LP
AG REALTY FUND VIII (AC), L.P.
ALIDADE CAPITAL FUND V
ARSENAL REAL ESTATE FUND IA
AXA DEVELOPMENT VENTURE IV LP
BERKSHIRE VALUE FD V
BROOKFIELD STRAT RE PTNRS
BROOKFIELD STRAT RE PTNRS II
BROOKFIELD STRAT RE PTNRS III
CARLYLE REALTY PARTNERS VIII
CENTERBRIDGE PARTNERS REAL ESTATE FUND II
DAVIS INVESTMENT VENTURES
DAVIS INVESTMENT VENTURES FUND V
DRC EUROPEAN DEBT FUND II
DUNE CAPITAL RE FD II
HEARTHSTONE MS III
INTERCONTINENTAL US REAL ESTATE INVESTMENT FUND
INVESCO CORE REAL ESTATE FUND
JP MORGAN SPECIAL SITUATIO
KAYNE ANDERSON REAL ESTATE PARTNERS VI
MFIRE VALUE
MFIRE VALUE II
MFIRE VALUE III
MFIRE VALUE IV

OAKTREE RE DEBT FUND II
OAKTREE RE DEBT FUND III
PRUDENTIAL REAL ESTATE INVEST PRISA II
PRUDENTIALSENIOR HOUSING PARTNERS III
PRUDENTIALSENIOR HOUSING PARTNERS VI
SCULPTOR RE FD II
SIGULER GUFF REAL OPP FUND II
SIGULRE GUFF REAL ESTATE OPP
TA REALTY ASSOCIATES FUND X UTP L
TA REALTY ASSOCIATES FUND XII
TA REALTY ASSOCIATES FUND XIII
TA REALTY CORE PROPERTY FUND
TERRACAP PARTNERS IV
TERRACAP PARTNERS V
TRISTAN CAPITAL EURO SPEC OPP
URDANG CENTERSQUARE SEPARATE REAL ESTATE
WCP REAL ESTATE FUND II
WCP REAL ESTATE FUND III
WCP REAL ESTATE IV

PRIVATE EQUITY

57 STARS GLOBAL OPP FUND 4
ALCENTRA CLAREANT SCF
ALCENTRA EUROPEAN CREDIT OPPTS II
ARCLIGHT ENERGY PARTNERS VI
ASCENT VENTURE PARTNERS III
ASCENT VENTURE PARTNERS VI
AUDAX MEZZANINE FUND III LP
BARINGS EMERGING GENERATION FUND
BLUE POINT CAPITAL PTNRS II
BOSTON MILLENNIA PARTNERS II
CCMP CAPITAL INVESTORS III
CRESCENT MEZZANINE PARTNERS VI
ENERGY SPECTRUM PARTNERS VI LP
EUROPEAN STRATEGIC PARTNERS 2006 B
EUROPEAN STRATEGIC PARTNERS L.P.
GCM GROSVENOR ADVANCE FUND
HAMILTON LANE DISCRETIONARY ACCOUNT FUND OF FUNDS
JF LEHMAN EQUITY INVESTORS III LP
JF LEHMAN EQUITY INVESTORS IV LP
KAYNE ANDERSON PRIVATE ENERGY INCOME II
LEXINGTON CAPITAL PARTNERS VIII
LEXINGTON CAPITAL PTNRS VII
LEXINGTON CAPITAL VI B

LEXINGTON MID MARKET II LP
LEXINGTON MIDDLE MARKETS
LEXINGTON MIDDLE MARKETS IV
MPM BIO VENTURES IV QP LP
NGP NATURAL RESOURCES XI LP
NGP NATURAL RESOURCES XII LP
PRUDENTIAL CAP PARTNERS II L P
PRUDENTIAL CAPITAL PRTNS IV
SANDERLING VENTURE V LP
SANDERLING VI
SANDERLING VI COINVESTMENT
SCP PRIVATE EQUITY PARTNERS
SIGULER GUFF DIS OPP IV LP
SIGULER GUFF DISTRESSED III
STERLING CAPITAL PARTNERS
STERLING CAPITAL PARTNERS II
STERLING CAPITAL PARTNERS III
STERLING CAPITAL PARTNERS IV
STERLING VENTURE PARTNERS
THOMA BRAVO FUND XII, L.P.
THOMAS H LEE EQUITY FUND VI
THOMAS H LEE PUTNAM INTERNET
VENTURE LENDING LEASING VII
VENTURE LENDING + LEASING IV
VENTURE LENDING + LEASING IX
VENTURE LENDING + LEASING V
VENTURE LENDING + LEASING VI
VENTURE LENDING + LEASING VII
VENTURE LENDING + LEASING VIII
VENTURE LENDING + LEASING X
W CAPITAL PARTNERS II
Z CAPITAL PARTNERS III A LP
Z CAPITAL SPECIAL SIT. FD II

HAMILTON LANE PRIVATE EQUITY

AMERICAN SECURITIES PARTNERS VIII, L.P.
APOLLO INVESTMENT FUND IX, L.P.
AURORA EQUITY PARTNERS V, L.P.
AVISTA CAPITAL PARTNERS IV, L.P.
AVISTA CAPITAL PARTNERS V, L.P.
AVISTA HEALTHCARE PARTNERS VI, L.P.
BLACKSTONE CAPITAL PARTNERS VIII, L.P.
CHARTERHOUSE CAPITAL PARTNERS XI, L.P.
CVC CAPITAL PARTNERS VII, L.P.
CVC CAPITAL PARTNERS VIII, L.P.

FSN CAPITAL VI, L.P.
GTCR FUND XIV LP
GTCR STRATEGIC GROWTH FUND I LP
H.I.G. MIDDLE MARKET LBO FUND III, L.P.
HAMILTON LANE CO-INVESTMENT FUND IV, L.P.
HAMILTON LANE EQUITY OPPORTUNITIES FUND V, L.P.
HAMILTON LANE SECONDARY FUND IV, L.P.
HAMILTON LANE SECONDARY FUND VI, L.P.
HAMILTON LANE VENTURE CAPITAL FUND, L.P. (SERIES 2020)
HAMILTON LANE VENTURE CAPITAL FUND, L.P. (SERIES 2021)
HAMILTON LANE VENTURE CAPITAL FUND, L.P. (SERIES 2022)
ICONIQ STRATEGIC PARTNERS FUND V, L.P.
ICONIQ STRATEGIC PARTNERS VI L.P.
ICONIQ STRATEGIC PARTNERS VII L.P.
INCLINE ELEVATE FUND, L.P.
INCLINE ELEVATE FUND II, L.P.
INCLINE ASCENT FUND, L.P.
INCLINE EQUITY PARTNERS VI, L.P.
INSIGHT PARTNERS X FOLLOW ON FUND, L.P.
INSIGHT PARTNERS XI, L.P.
INSIGHT PARTNERS XII, L.P.
INSIGHT VENTURE PARTNERS X, L.P.
JFL EQUITY INVESTORS V, L.P.
JFL EQUITY INVESTORS VI, L.P.
KPS SPECIAL SITUATIONS FUND V, L.P.
MAIN CAPITAL VI C.V.
MAIN CAPITAL VII COOPERATIEF U.A.
MAIN FOUNDATION I COOPERATIEF U.A.
OAK HC/FT PARTNERS IV, L.P.
OAK HC/FT PARTNERS V, L.P.
PLATINUM EQUITY CAPITAL PARTNERS V, L.P.
PLATINUM EQUITY CAPITAL PARTNERS VI, L.P.
ROARK CAPITAL PARTNERS V, L.P.
STG ALLEGRO FUND, L.P.
STG VII,L.P.
SUMMIT PARTNERS GROWTH EQUITY FUND X, L.P.
SUMMIT PARTNERS GROWTH EQUITY FUND XI, L.P.
TCV XI, L.P.
THOMA BRAVO DISCOVER FUND III, L.P.
THOMA BRAVO FUND XIII, L.P.
THOMA BRAVO FUND XV, L.P.
THOMAS H. LEE EQUITY FUND IX, L.P.
THOMAS H. LEE EQUITY FUND VIII, L.P.
ZMC III, L.P.

Misc

T ROWE PRICE ASSOCIATES
STATE STREET (STIF)

Annual Statement of the Boston Retirement System for the Year Ended December 31, 2023

ANNUAL STATEMENT BALANCE TESTS

1. ASSET BALANCE

Assets Previous Year	9,483,630,323
Income Current Year	(153,248,633)
Disbursements Current Year	<u>(797,621,602)</u>
Assets Current Year	<u><u>8,532,760,087</u></u>

2. ASSET DIFFERENCE

Assets Current Year	8,532,760,087
Assets Previous Year	<u>9,483,630,323</u>
Difference	<u><u>(950,870,235)</u></u>

3. INCOME DIFFERENCE

Income Current Year	(153,248,633)
Disbursements Current Year	<u>(797,621,602)</u>
Difference	<u><u>(950,870,235)</u></u>

4. FUND CHANGE DIFFERENCE – Add interfund transfer CRs and DRs respectively to Income and Disbursements

Total Fund Change Credits Current Year	151,845,147
Total Fund Change Debits Current Year	<u>(1,102,715,383)</u>
Difference	<u><u>(950,870,235)</u></u>

NOTE: The difference as a result of tests 2, 3, and 4 should be the same.

Annual Statement of the Boston Retirement System for the Year Ended December 31, 2022

ASSETS & LIABILITIES

	<u>2022</u>	<u>2021</u>	<u>2020</u>
1. 1040s Cash	369,064,381	310,870,059	265,504,458
2. 1100 Individually Owned Short Term Investments	91,736,305	136,342,120	61,752,158
3. 1180 Fixed Income Securities (Market Value)	1,188,757,014	1,351,109,133	1,203,935,294
4. 1101 Pooled Short Term Funds			
5. 1170 Equities	796,679,685	1,002,046,913	909,755,738
6. 1172 Pooled Domestic Equity Funds	588,314,216	715,270,700	747,518,130
7. 1173 Pooled International Equity Funds	1,384,062,915	1,642,301,802	1,440,634,932
8. 1174 Pooled Global Equity Funds	0	0	0
9. 1181 Pooled Domestic Fixed Income Funds	0	0	0
10. 1182 Pooled International Fixed Income Funds	0	0	0
11. 1183 Pooled Global Fixed Income Funds	352,560,480	382,945,000	353,466,638
12. 1193 Pooled Alternative Investments / Private Equity	675,672,015	637,748,040	498,308,011
13. 1194 Pooled Real Estate Funds	661,670,629	628,727,195	510,191,467
14. 1195 Pooled Domestic Balanced Funds	0	0	0
15. 1196 Pooled International Balanced Funds	0	0	0
16. 1197 Hedge Funds	328,744,988	347,370,129	322,229,058
17. 1198 PRIT Cash Fund	197,309,267	179,375,624	162,984,627
18. 1199 PRIT Core Fund	1,907,913,972	2,187,775,165	1,841,023,841
19. 1350 Prepaid Expenses	953,934	1,726,016	2,025,030
20. 1398 Accounts Receivable (A)	35,085,542	45,991,493	57,882,130
21. 1550 Interest Due and Accrued	13,925,999	12,286,934	9,057,353
22. 2020 Accounts Payable (A)	(59,691,252)	(98,256,001)	(81,394,334)
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TOTAL	8,532,760,088	9,483,630,323	8,304,874,533
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FUNDS			
1. 3293 Annuity Savings Fund	2,112,390,293	2,041,838,572	1,988,228,420
2. 3294 Annuity Reserve Fund	433,103,354	443,892,855	437,916,584
3. 3295 Special Military Service Credit Fund	1,237,441	50,189	50,139
4. 3296 Pension Fund	811,024,102	594,969,218	422,496,320
5. 3298 Expense Fund	0	0	0
6. 3297 Pension Reserve Fund	5,175,004,898	6,402,879,489	5,456,183,070
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TOTAL ASSETS AT MARKET VALUE	8,532,760,088	9,483,630,323	8,304,874,533
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Annual Statement of the Boston Retirement System for the Year Ended December 31, 2022

	Balance Dec. 31 Prior Year	Receipts	Interfund Transfers	Disbursements	Balance Dec. 31 Current Year
Annuity Savings Fund	2,041,838,572	196,009,951	(109,660,819)	(15,797,410)	2,112,390,293
Annuity Reserve Fund	443,892,855	13,008,603	109,660,819	(133,458,924)	433,103,354
Military Service Fund	50,189	1,187,252	0	0	1,237,441
Pension Fund	594,969,218	610,081,637	195,432,961	(589,459,715)	811,024,102
Expense Fund	0	58,905,554	0	(58,905,554)	0
Pension Reserve Fund	6,402,879,489	(1,032,441,630)	(195,432,961)	0	5,175,004,898
TOTAL ALL FUNDS	9,483,630,323	(153,248,633)	0	(797,621,602)	8,532,760,088

List below all transfers:

- Transfer from ASF Fund to the ARF Fund in the Amount of \$ 109,660,819. on Account of Retirements.
- Transfer from PRF Fund to the PF Fund in the Amount of \$ 195,432,961. on Account of PERAC Approx
- Transfer from _____ Fund to the _____ Fund in the Amount of \$ _____ on Account of _____.
- Transfer from _____ Fund to the _____ Fund in the Amount of \$ _____ on Account of _____.
- Transfer from _____ Fund to the _____ Fund in the Amount of \$ _____ on Account of _____.
- Transfer from _____ Fund to the _____ Fund in the Amount of \$ _____ on Account of _____.

Annual Statement of the Boston Retirement System for the Year Ended December 31, 2022

RECEIPTS

	<u>2022</u>	<u>2021</u>	<u>2020</u>
1. Annuity Savings Fund:			
(a) 4891 Members' Deductions	187,973,820	179,115,205	184,429,167
(b) 4892 Transfers from Other Systems	4,462,202	5,224,956	6,159,302
(c) 4893 Members' Make up Payments & Re-deposits	561,660	834,581	871,399
(d) 4900 Member Payments from Rollovers	1,080,091	544,463	613,811
(e) Investment Income Credited to Members' Accounts	1,932,178	1,869,354	1,890,661
Subtotal	<u>196,009,951</u>	<u>187,588,558</u>	<u>193,964,340</u>
2. Annuity Reserve Fund:			
(a) 4750 Recovery of Annuity from Reinstatement	0	3,538	0
(b) Investment Income Credited to Annuity Reserve Fund	13,008,603	12,968,021	13,100,653
Subtotal	<u>13,008,603</u>	<u>12,971,559</u>	<u>13,100,653</u>
3. Pension Fund:			
(a) 4898 3(8)(c) Reimbursements from Other Systems	4,342,417	4,086,194	3,935,989
(b) 4899 Received from Comm. for COLA and Survivor Benefits	0	478,582	0
(c) 4894 Pension Fund Appropriation	605,643,643	550,225,930	513,508,120
(d) 4840 Workers' Compensation Settlements	95,577	0	0
(e) 4751 Recovery of Pension from Reinstatement	0	59,499	0
(f) 4841 Recovery of 91A Overearnings	0	0	0
Subtotal	<u>610,081,637</u>	<u>554,850,206</u>	<u>517,444,109</u>
4. Military Service Fund:			
(a) 4890 Contributions Received for Military Service	1,187,202	0	0
(b) Investment Income Credited to Military Service Fund	50	50	50
Subtotal	<u>1,187,252</u>	<u>50</u>	<u>50</u>
5. Expense Fund:			
(a) Investment Income Credited to Expense Fund	58,905,554	56,492,998	51,156,436
Subtotal	<u>58,905,554</u>	<u>56,492,998</u>	<u>51,156,436</u>
6. Pension Reserve Fund:			
(a) 4897 Federal Grant Reimbursement	0	0	0
(b) 4895 Pension Reserve Appropriation	0	0	0
(c) 4822 Interest Not Refunded	(533,941)	(558,545)	(330,917)
(d) 4825 Miscellaneous Income	98,242	4,427	5,488
(e) Excess Investment Income	(1,032,005,931)	1,128,023,447	842,845,872
Subtotal	<u>(1,032,441,630)</u>	<u>1,127,469,329</u>	<u>842,520,443</u>
TOTAL RECEIPTS	<u>(153,248,633)</u>	<u>1,939,372,700</u>	<u>1,618,186,031</u>

Annual Statement of the Boston Retirement System for the Year Ended December 31, 2022

DISBURSEMENTS

	<u>2022</u>	<u>2021</u>	<u>2020</u>
1. Annuity Savings Fund:			
(a) 5757 Refunds to Members	13,166,230	11,123,400	7,359,163
(b) 5756 Transfers to Other Systems	2,631,180	3,981,079	3,069,665
Subtotal	<u>15,797,410</u>	<u>15,104,479</u>	<u>10,428,827</u>
2. Annuity Reserve Fund:			
(a) 5750 Annuities Paid	132,336,427	124,700,015	117,469,235
(b) 5759 Option B Refunds	1,122,496	1,169,200	1,330,801
Subtotal	<u>133,458,924</u>	<u>125,869,215</u>	<u>118,800,036</u>
3. Pension Fund:			
(a) 5751 Pensions Paid	579,278,849	554,178,797	535,947,744
Regular Pension Payments	459,231,644	436,605,507	420,431,794
Survivorship Payments	13,034,055	13,358,800	13,195,604
Ordinary Disability Payments	3,389,309	3,581,144	3,297,943
Accidental Disability Payments	88,444,161	86,060,731	83,862,877
Accidental Death Payments	12,078,555	11,246,794	11,732,762
Section 101 Benefits	3,101,125	3,325,822	3,426,763
(b) 5755 3(8)(c) Reimbursements to Other Systems	10,180,866	8,971,422	4,053,380
(c) 5752 COLAs Paid	0	0	0
(d) 5753 Chapter 389 Beneficiary Increase Paid	0	0	0
Subtotal	<u>589,459,715</u>	<u>563,150,219</u>	<u>540,001,124</u>
4. Expense Fund:			
(a) 5118 Board Members' Stipend	16,399	20,938	23,909
(b) 5119 Staff Salaries	3,809,396	4,067,723	3,808,444
(c) 5304 Management Fees	49,707,562	45,844,864	40,775,369
(d) 5305 Custodial Fees	275,359	291,332	276,077
(e) 5307 Investment Consultant Fees	662,500	650,000	645,000
(f) 5308 Legal Expenses	184,434	126,471	155,785
(g) 5309 Medical Expenses	58,229	65,384	15,083
(h) 5310 Fiduciary Insurance	550,573	366,846	308,827
(i) 5311 Service Contracts	12,652	68,075	86,404
(j) 5312 Rent Expense	0	0	0
(k) 5315 Professional Services	2,239,209	2,724,314	2,569,901
(l) 5316 Actuarial Services	121,696	54,000	114,470
(m) 5317 Accounting Services	197,200	190,562	186,516
(n) 5320 Education and Training	0	0	4,364
(o) 5589 Administrative Expenses	1,039,475	2,006,395	2,079,784
(p) 5599 Furniture and Equipment	22,906	14,554	104,600
(q) 5719 Travel Expense	7,964	1,540	1,906
(r) 5829 Depreciation Expense: Building	0	0	0
Subtotal	<u>58,905,554</u>	<u>56,492,998</u>	<u>51,156,436</u>
TOTAL DISBURSEMENTS	<u><u>797,621,602</u></u>	<u><u>760,616,911</u></u>	<u><u>720,386,424</u></u>

Annual Statement of the Boston Retirement System for the Year Ended December 31, 2022

INVESTMENT INCOME

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Investment Income received from:			
(a) Cash (from Schedule 1)	6,505,964	247,803	1,148,503
(b) Short Term Investments (from Schedule 2)	1,633,816	259	387,401
(c) Fixed Income Securities (from Schedules 3A and 3C)	58,946,766	39,262,214	26,235,591
(d) Equities (from Schedules 4A and 4C)	41,758,624	54,186,913	59,457,849
(e) Pooled Funds (from Schedule 5)	76,879,223	71,775,938	53,092,349
(f) Commission Recapture and Securities Litigation	0	0	0
4821 TOTAL INVESTMENT INCOME	185,724,394	165,473,127	140,321,693
Plus:			
4884 Realized Gains (Profits)	90,324,525	400,812,510	197,444,702
4886 Unrealized Gains (Increase in Market Value)	499,229,495	872,680,337	1,284,624,273
1550 Interest/Dividends Due and Accrued - Current Year	13,106,466	10,672,144	9,258,581
Less:			
4823 Paid Accrued Interest on Fixed Income Securities	3,026,964	2,663,572	3,423,070
4885 Realized Losses	146,722,237	9,100,872	71,297,901
4887 Unrealized Losses (Decrease in Market Value)	1,571,428,123	221,749,286	634,974,136
1550 Interest/Dividends Due and Accrued - Prior Year	12,286,934	9,057,353	9,459,810
Additional Adjustments:			
4701 Carried Interest Expense	(5,552,701)	(4,498,076)	(305,340)
4702 Equalization Expense	(2,338,912)	(1,190,137)	(79,452)
4703 Miscellaneous Investment Expenses	(5,188,554)	(2,024,951)	(3,115,869)
NET INVESTMENT INCOME	(958,159,546)	1,199,353,870	908,993,673
Income Required:			
Annuity Savings Fund (from Supplementary Schedule)	1,932,178	1,869,354	1,890,661
Annuity Reserve Fund	13,008,603	12,968,021	13,100,653
Special Military Service Credit Fund	50	50	50
Expense Fund	58,905,554	56,492,998	51,156,436
TOTAL INCOME REQUIRED	73,846,386	71,330,423	66,147,800
Net Investment Income	(958,159,546)	1,199,353,870	908,993,673
Less Income Required	73,846,386	71,330,423	66,147,800
EXCESS INCOME TO PENSION RESERVE FUND	(1,032,005,931)	1,128,023,447	842,845,872

Annual Statement of the Boston Retirement System for the Year Ended December 31, 2022

Annuity Reserve Interest Calculation

Enclose a copy of this calculation with the Annual Statement. To calculate interest required for the ARF (3294), begin with the balance on December 31st of the prior year. Subtract from that balance any debits such as annuities paid (5750), option B refunds paid (5759), and any transfer resulting from a surplus in the ARF (3294). Next, add any credits such as transfers from the ASF and any transfer resulting from a deficit in the ARF. Then multiply each monthly balance by .0025. Lastly, enter the total of the 12 months' interest as an adjusting entry, and add it to the balance of December 31st of the statement year.

	Debit Balance		Recovery from		Credit Balance			x .0025
	5750	5759	Transfers Out	Reinstatement 4750	3294	Transfers In	Balance	
December 31st (P/Y)					443,892,853.67		443,892,853.67	1,109,732.13
January 31st	(10,622,024.90)	-	0.00	0.00	3,435,868.66	0.00	436,706,697.43	1,091,766.74
February 28th	(10,807,862.67)	(340,318.84)	0.00	0.00	10,528,899.46	0.00	436,087,415.38	1,090,218.54
March 31st	(11,124,692.84)	(345,134.65)	0.00	0.00	16,748,835.83	0.00	441,366,423.72	1,103,416.06
April 30th	(10,845,167.45)	(53,362.97)	0.00	0.00	6,681,733.70	0.00	437,149,627.00	1,092,874.07
May 31st	(10,905,977.88)	(30,820.30)	0.00	0.00	11,292,418.13	0.00	437,505,246.95	1,093,763.12
June 30th	(10,898,588.52)	(83,274.82)	0.00	0.00	7,787,381.04	0.00	434,310,764.65	1,085,776.91
July 31st	(10,938,537.72)	(81,528.49)	0.00	0.00	6,131,272.98	0.00	429,421,971.42	1,073,554.93
August 31st	(11,039,202.67)	(66,778.17)	0.00	0.00	10,906,908.53	0.00	429,222,899.11	1,073,057.25
September 30th	(11,142,265.74)	-	0.00	0.00	6,674,943.13	0.00	424,755,576.50	1,061,888.94
October 31st	(11,329,419.13)	(102,788.82)	0.00	0.00	14,575,495.96	0.00	427,898,864.51	1,069,747.16
November 30th	(11,413,157.16)	-	0.00	0.00	8,637,282.09	0.00	425,122,989.44	1,062,807.47
December 31st					6,259,779.96			
Debit Investment Income		(Ledger #4821)						13,008,603.32
Credit Annuity Reserve Fund		(Ledger #3294)						13,008,603.32

Annuity Savings Interest Calculation

Beginning Balance	2,041,838,572
Interfund Transfers	(109,660,819)
Adjusted Balance	1,932,177,752
Interest Rate	x .0010
	<u>1,932,178</u>

Military Fund Interest Calculation

	x .0010
50,189.09	50.19

**Annual Statement of the BOSTON RETIREMENT BOARD
for the year ended December 31, 2022**

	Group 1	Groups 2 and 4	Total
Active Members			
Active membership, December 31, previous yr	17,381	4,187	21,568
Inactive membership, December 31, previous yr	15,809	664	16,473
Enrolled during current year	2,194	308	2,502
Transfers between groups	0	0	0
Reinstatements of disabled members	0	0	0
Subtotal	35,384	5,159	40,543
Deduct			
Death	23	5	28
Withdrawals	430	16	446
Retirements	445	169	614
Subtotal	34,486	4,969	39,455
Active membership, December 31, current yr	18,216	4,273	22,489
Inactive membership, December 31, current yr	16,287	679	16,966
Retired Members, Beneficiaries, and Survivors			
Retired, Beneficiary, and Survivor membership, December 31, previous year	10,954	3,907	14,861
Retirements during the year:			
Superannuation	362	143	505
Ordinary disability	0	0	0
Accidental disability	12	26	38
Termination retirement allowance	0	0	0
Beneficiary of Deceased Retiree	54	39	93
Survivor Benefits from Active membership	12	5	17
Subtotal	440	213	653
Deduct			
Death of retired members	417	102	519
Termination of survivor benefits	81	88	169
Reinstatements of disabled pensions	0	0	0
Subtotal	498	190	688
Retired Membership, end of period			
Superannuation	9,339	1,897	11,236
Ordinary disability	105	24	129
Accidental disability	471	1,136	1,607
Termination retirement allowance	24	11	35
Beneficiaries from Section 100	120	285	405
Beneficiaries from accidental death	13	24	37
Beneficiaries from Section 101	96	189	285
Beneficiaries under Option (c)	705	347	1,052
Option (d) Survivor Allowance	487	142	629
Section 12B Survivor Allowance	2	19	21
Retired, Beneficiary, and Survivor membership,	11,362	4,074	15,401
Total membership:			
Active, inactive, retired, beneficiary, survivor, December 31, current year	45,865	9,026	54,856

4/6/2023

Annual Statement of the Boston Retirement System for the Year Ended December 31, 2022

Schedule A

Detail of Accounts Receivable and Accounts Payable

Accounts Receivable		<u>DATE</u>
4825 - Miscellaneous Income - Teacher Administrative Expense Reimbursement		
4891 - Members Deductions	73,875	<u>12/31/22</u>
4892 - Transfers From Other Systems	0	
4893 - Member Make Up Payments and Redeposits	0	
4900 - Member Payments from Rollovers	0	
4898 - 3-(8)(c) Reimbursements From Other Systems	7,078,291	<u>12/31/22</u>
4899 - Received from Commonwealth for COLA and Survivor Bene	0	
4884 - Profit on Sale of Investments	0	
4894 - Pension Fund Appropriation	21,465,873	<u>12/31/22</u>
4890 - Contr Rec'd from municipality on a/c of mil serv	0	
4896 - Expense Fund Appropriation	0	
4897 - Federal Grant Reimbursement	0	
4895 - Pension Reserve Appropriation	0	
4901 - Workmen's Compensation	0	
4902 - Refund of Section 91A	0	
4903 - Warrants Receivable	0	
4904 - Interest Receivable	0	
4905 - Receivable for Foreign Currency Sold	0	
4905 - Open Trades - International	63,805	<u>12/31/22</u>
4905 - Open Trades - Domestic Equities and Fixed Income	6,403,698	<u>12/31/22</u>
Total Receivables	35,085,542	
Accounts Payable		
5757 - Refunds to Members	0	
5756 - Transfers to Other Systems	0	
5750 - Annuities Paid	0	
5759 - Option B Refunds	0	
5751 - Pensions Paid	0	
5755 - 3(8)(c) Reimbursements To Other Systems	-24,529,648	<u>12/31/22</u>
5752 - COLA's Paid	0	
5753 - Chapter 389 Beneficiary Increase Paid	0	
4885 - Loss on Sale of Investments	0	
4890 - Return to Municipality For Members who withdrew funds	0	
5118 - Board Member Stipend	0	
5119 - Salaries	-2,149,561	<u>12/31/22</u>
5304 - Management Fees as offset to Expense Fund	-4,293,430	<u>12/31/22</u>
5305 - Custodial Fees as offset to Expense Fund	-125,887	<u>12/31/22</u>
5307 - Consultant Fees	0	
5308 - Legal Expenses	-12,330	<u>12/31/22</u>
5309 - Medical Expenses	-12,731	<u>12/31/22</u>
5315 - Professional Services	-327,866	<u>12/31/22</u>
5589 - Administrative Expenses	-18,101	<u>12/31/22</u>
5599 - Furniture and Equipment	-2,005	<u>12/31/22</u>
5719 - Travel	0	
5901 - Payable for Foreign Currency Purchased	0	
5901 - Investments Payable - International	0	
5901 - Investments Payable - Domestic Equities and Fixed Income	-28,218,897	<u>12/31/22</u>
5901 - Management Fees	0	
5902 - Federal Grant Reimbursement due to City of Boston	0	
5903 - Investment Payable		
5904 - Investment Payable	0	
5310 - Fiduciary Insurance	0	
5311 - Service Contracts	-795	<u>12/31/22</u>
5312 - Rent Expense	0	
Total Payables	-59,691,252	

Final 3-20-2023